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ABSTRACT

This paper discusses the improvement process used in schools to bring about change, as well as the influence of external agencies on improvement activity. It considers school district processes as they relate to improvement activity, the strategies and roles performed by external agencies, and the issues that might effect planning by an external agency. Questions that external agencies should consider in regard to support and influence of a school district provide a basis for drawing the paper together. (Author/LD)

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SCHOOL IMPROVEMENT PROCESSES AND EXTERNAL AGENCY ROLES

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Research for Better Schools, Inc.

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INTRODUCTION

This paper is concerned with school district processes and influences, especially as they condition and impact improvement activity, and the influences that agencies external to the school district provide in supporting school district improvement activity.

The paper is built upon some assumptions which have implications for the strategies employed by external agencies as they work with school districts to effect improvement. These assumptions are

- It is necessary to understand school district processes as they typically occur as a means for achieving student learning outcomes.
- It is necessary to understand external agency processes as they typically occur as a stimulus and support for school district processes.
- When there is good reason to believe that either school district or external agency processes are deficient as they occur, current R&D utilization practices may offer promise for strengthening such deficiencies.

The paper attempts to achieve three purposes: (1) to consider the nature of processes in school districts as they relate to improvement activity, (2) to consider the nature of strategies and roles performed by external agencies in support of school district improvement activity, and (3) to consider issues that might bear on the planning conducted by an external agency as it contemplates existing and new strategies for working with the school district.

Two main sections divide the paper. The first provides a discussion of different perspectives for looking at stages or phases of school

district improvement processes. One perspective is selected as a basis for structuring subsequent explorations of improvement processes. The section provides a discussion of factors that influence improvement process activities and outcomes that result from the interaction of influential factors and improvement activities. The second section provides a discussion of perspectives that influence strategies employed by external agencies as they work with school districts. An identification of questions that external agencies should take into account as they consider ways to support and influence the school district is provided as a basis for drawing the second section and the paper together.

Reference is made throughout the paper to articles and studies. In the main the literature provides models and theories and to a lesser extent descriptions of practical R&D utilization strategies and approaches. In some instances research evidence is provided as the basis for drawing the conclusions offered. While most of the literature cited is drawn from the literature review conducted in 1977*, a number of additional studies are cited as well.

An earlier draft of the paper benefited from discussions with Paul Berman, Rand Corporation, John Connolly, Research for Better Schools, and James McNamara, Texas A&M. The present version of the paper reflects many of the criticisms and suggestions offered by Gloria Cohen, Louis Maguire, Richard McCann, and Janet McGrail, all of Research for Better Schools.

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* Gloria Cohen. "External Agency Roles and School Improvement Processes: An Annotated Bibliography." Research for Better Schools. December, 1977.

I. SCHOOL DISTRICT IMPROVEMENT PROCESSES

A. Introduction

Few who have worked in school districts would deny the conclusion that school staff engage in improvement oriented activity. For example, principals and teachers participate in staff meetings in which newly available instructional resources are discussed. Teachers often adjust lesson content and continually initiate approaches to motivate students. There are innumerable ways in which adjustments to instruction and learning are effected. These adjustments are part of the routine of the professional educator who works in the school district.

Broader approaches to improve also occur within the school district and within individual schools. These approaches tend to encompass more people, resources, and time. In this paper, they are referred to as improvement processes. An improvement process is defined as the full scope of activities conducted by a school district to formulate and implement change. This paper is concerned with those improvement processes that are initiated to effect changes that have implications for the total instructional delivery system of schools or classrooms within schools.

Many individuals in universities, research and development agencies, and state and federal agencies have been concerned with improvement processes in school districts. Their interests have varied. For example, some have conducted research to improve understandings about the nature

of improvement processes, while others have fashioned interventions to influence the nature of those processes.

A number of individuals concerned with improvement have found it useful to think in terms of phases or stages of the improvement process. Lippitt, Watson and Westley (1958), for example, in considering an appropriate relationship between a change agent and a client organization set forth seven stages: (1) development of a need for change, (2) establishment of a change relationship, (3) clarification or diagnosis of the client system's problems, (4) examination of alternative routes and goals: establishing goals and intentions of action, (5) transformation of intentions into actual change efforts, (6) generalization and stabilization of change, and (7) achieving a terminal relationship. While the Lippitt et al. conceptions did not specifically attend to school district improvement processes, many individuals adapted these stages for work with schools (e.g., Havelock, 1973).

Another view of improvement stages is being developed by the R&D Center for Teacher Education at the University of Texas. The Concerns Based Adoption Model (CBAM) considers the kinds of "concerns" expressed by educators as they adopt and implement innovations (Hall, 1974; Hall & Rutherford, 1976). According to the CBAM approach, seven stages of concerns surface during an improvement process: awareness, informational, personal, management, consequence, collaboration, and refocusing.

A Rand Corporation study team that conducted a national study of the adoption and implementation of federally sponsored programs

organized their conceptions of improvement processes in three phases. The first phase, mobilization, is concerned with how district staff conceive and formulate plans, and seek resources and support. The implementation phase is concerned with how the district staff carry out their plans. The third phase, institutionalization, is concerned with how district staff decide that the innovative practice should lose its "special project" status and become standard practice for the school (Berman & McLaughlin, 1977).

Other views of phases or stages in school district improvement processes have been formulated by educatioral leaders at the state level. In these instances, sequences of activities have been prescribed for school districts to follow as a means for attaining improved levels of student outcomes. New Jersey provides an example of the kind of steps being conducted by school districts in many states. The New Jersey "process-steps" include (1) set goals, (2) develop objectives, measures, and standards, (3) assess student needs, (4) plan and implement programs, (5) evaluate programs, and (6) review and plan budget.

In many cases, a district's activities do not follow a particular prescribed sequence of activity; nor do activities always start and stop at identified beginning and ending points that correspond to someone's definition of stages or phases. Phase definitions, however, are useful as ways of categorizing and analyzing activity, and facilitating discussion.

In the view of this author, there are two important phases in any school improvement process. These phases are mobilization and implementation. The treatment provided here is similar to that given by the Rand team to their first two stages and incorporates some ideas included in institutionalization -- the third phase proposed by Rand.

The mobilization and implementation phases are now discussed in some detail. Factors that influence various activities conducted by school districts as their staff seek to improve instruction and learning are identified. Since factors very often interact with each other, their influences tend to weave in and out of different discussions. As various factors and activities are introduced, advice and research findings from the literature are incorporated within the discussion. In many cases, the literature does not provide much guidance for gauging and attending to different influences and activities. In some of these instances, the author draws on personal knowledge of R&D practices and experiences as a way of supplementing and, at times, complementing the literature.

B. Mobilization

1. Overview for the Mobilization Phase

Improvement processes may be initiated within a school district in many different ways. In one school district, for example, the school board, superintendent, or principal might decide to operationalize a current educational theme such as environmental education, the open classroom or competency based education. In another district, any of those parties might decide to identify priorities for improvement by

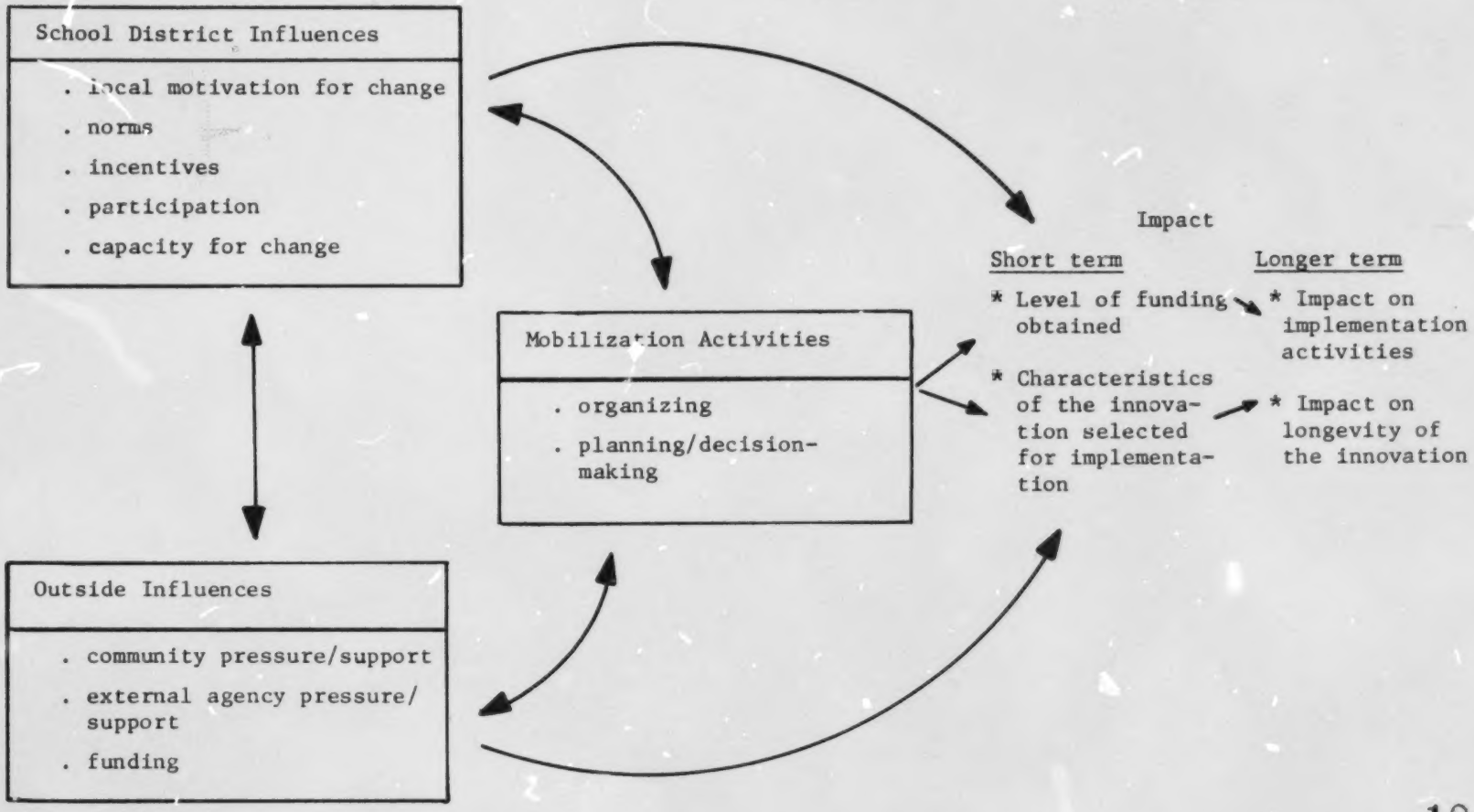
initiating an analysis of student achievement data. In still another district, the principal and teachers might serve as an important force for initiating improvement by visiting different schools to observe reading instruction.

The chart on the next page provides an overview of the mobilization phase. This phase is seen as consisting of organizing and planning and decision-making activities. Factors seen as influencing these activities are grouped into "school district influences" and "outside influences." Included within the school district influences are the nature of local motivation for change, existing norms and incentives, various forms of participation, and the district's capacity for change. Included within the outside influences are community pressure and support, external agency pressure and support, and funding.

The school district influences, outside influences, and mobilization activities interact. In addition, these influences and activities have both short and long range impact. In the short run, they influence the level of funding obtained and the innovation selected for implementation. They have long range impact on implementation activities and on the longevity of the innovation.

In this section, mobilization activities, influences on mobilization, and outcomes of the mobilization phase are described. Before doing so, however, it is necessary to note that the distinction between mobilization and implementation activities is not clear-cut. The school

MOBILIZATION PHASE



district staff mobilize resources and support during both phases of an improvement process. On the other hand, district staff deal with implementation considerations throughout an improvement process. Nevertheless, there are differences between mobilization activities and implementation activities, as will be evident in the descriptions now presented.

2. Activities Within the Mobilization Phase

In the view of the author, each of two perspectives is needed to characterize activities conducted by the school district during the mobilization phase. An organizing perspective takes into consideration such activities as locating funding sources and seeking teacher, administrator, school board, and community support for an improvement process. A planning/decision-making perspective includes attention to such activities as defining problems and needs, seeking new educational methods or approaches, and selecting an appropriate innovation for implementation. Several authors discuss these activities but the two perspectives tend to be undifferentiated (Berman & McLaughlin, 1977; Kirst, 1977; Temkin, McCann, & Connolly, 1977).

Organizing activities do not appear to suggest how the mobilization phase might end. Planning and decision-making activities suggest that mobilization activities may be viewed as "completed" at the time that district staff decide to implement a specific innovative practice or program. Although activities that are distinctly mobilization in nature might occur within the implementation phase, the district's

decision to implement something specific may be considered as a reasonable way to mark the end of the mobilization phase. Crandall (1977) suggests that this distinction is especially worthwhile for agencies external to the school district as they consider various kinds of supporting and facilitating roles that they might perform.

Basically, organizing-type activities are seen by the author as attempts by school district staff to take various influential factors into account. As an example, the involvement of teachers at the earliest opportunity is a recognition on the part of those controlling the improvement process that teacher influence may be important to the acceptance of any forthcoming decision about the selection and implementation of a particular innovation.

Organizing activities often represent attempts to deal with several important influences at the same time. Activities that are initiated to achieve community acceptance, for instance, may also be intended to create in district staff a greater awareness of certain institutional problems (e.g. low reading scores in many schools) as an underlying motivation for seeking improvement.

Planning/decision-making activities may vary considerably from district to district. However, little empirically based guidance is provided by the literature about the activities that school district staff actually perform to plan and decide on a specific innovation they want to implement. There is literature on group processes that might guide school district staff through generally applicable problem analysis and

solution seeking activities (e.g., Havelock, 1973; Paul, 1977). There is also literature that prescribes specific information search and retrieval procedures.* These bodies of literature, however, do not address a range of issues including, for example, the ways in which school staff decide upon search specifications that will guide an investigation of the suitability of different instructional practices for their students and school circumstances. For practical purposes, the activities that a school district employs or should employ to decide about the most appropriate innovation for them are a "black box."

One set of planning and decision-making activities about which some information is available is employed by one of NIE's "R&D Utilization" projects, the Pennsylvania School Improvement Program (PSIP). In Pennsylvania, schools receive data from state testing offices in relation to basic skills performance. Some schools, identified as "low performing" on the state tests, are invited to participate in PSIP. Participation is voluntary. Within the PSIP approach, school district staff spend the better part of a school-year working to reach a decision about the particular innovation they will implement. During that time, a school team analyzes data about student characteristics and performance. The team also uses a group of PSIP instruments to gather and analyze data about their classroom instructional practices (e.g.,

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* An example of this literature is contained in the Educational Development, Dissemination & Evaluation Training Resource materials developed by the Far West Laboratory. Module 2.4 of series 2, for instance, deals with "The Retrieval of Information Using Special Sources."

classroom management procedures, student tracking techniques, and student time spent on learning tasks). The team also attempts to build a conception or "shared vision" of the kind of instructional and learning environment they want to operationalize in their classrooms. That "shared vision" and the understanding attained by the school team about student characteristics and the strengths and weaknesses of their present classroom practices serve as their guide for considering alternative programs and practices. Once they have made their selections, they are ready to prepare an implementation plan.

The PSIP approach provides definition, beyond that given by a very general group process literature and the very specific information search and retrieval literature, for problem analysis and resource identification activities. In the judgment of the author, the PSIP approach, when coupled and integrated with an appropriate mix of group process considerations and information technology procedures, offers a viable way to view many of the planning and decision-making activities within the mobilization phase.

3. Factors Influencing the Mobilization Phase

Factors that influence the mobilization process are now identified and discussed. School district influences are dealt with first, followed by a discussion of outside influences.

3.1 School district influences

Influences of the school district organization upon the mobilization phase include (a) local motivation for change, (b) norms and incentives,

(c) participation, and (d) capacity for change. Each of these influences is now discussed.

a. Local motivation for change

There are lots of things that might motivate district staff to initiate change. Among these are the various outside influences discussed later, the disposition of the school board and various individuals and groups within the district, and the availability of data about student performance. However, the very nature of the district's underlying motivation for initiating change is considered by only a few authors. Those authors base their conclusions on empirical evidence.

The Rand study team indicated that the nature of a school district's motivation for engaging in an improvement process influences not only the way in which mobilization activity is conducted but also influences the implementation process and continuation of the innovation (Greenwood, Mann, & McLaughlin, 1975). They concluded that when the district staff's motivation for initiating improvement processes was "opportunistic," in the sense of merely trying to attract federal funds, the likelihood of adaptive implementation* and project continuation were decreased. On the other hand, when the initial motivation for mobilization activity was seen as finding a solution to a problem that was important to the school district as an organization, the likelihood of positive outcomes was increased.

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* Adaptive implementation is discussed within the implementation phase section as "mutual adaptation."

In a study of NIE's Experimental Schools Program and California's Early Childhood Program, Kirst (1977) came to a similar conclusion. He indicated that when the problem definition was imposed uniformly on districts by the funding agency, the motivation of local staff toward the project tended to be weak. On the other hand, when district staff perceived the problem as relevant to the district's needs, staff motivation toward the project tended to be strong.

b. Norms and incentives

Norms are group values and attitudes. Incentives generally are thought of as means for achieving a desired motivation and subsequent behavior. It is possible to discuss the influence of norms on organizational behavior without introducing incentives. However, it is very difficult to discuss incentives without introducing norms as a mediating influence.

The importance of norms as general influences on organizational behavior has been emphasized by sociologists and other organizational theorists (e.g., Baldridge & Deal, 1975; Bidwell, 1965; Leavitt, 1965). Examples of how norms influence improvement processes very often have been provided by those with an organizational development orientation (e.g., Lippitt, Watson, & Westley, 1958; Miles, 1975; Runkel & Schmuck, 1974).

The influence of incentives, and the effects of norms on incentives, usually have been discussed in terms of particular examples (e.g., Havelock, 1971; Lieberman, 1977; Miles, 1975). However, Rincus (1974)

provides a somewhat comprehensive analysis of school district incentives and norms and how they work for and against certain kinds of innovations.

With regard to norms, Pincus indicates that three motivational factors tend to make the district's response to opportunities for innovation somewhat unique in contrast with other kinds of public and private agencies. He refers to these as bureaucratic safety, response to external pressure, and approval of peer elite and suggests that they condition behavioral incentives of the schools. He discusses the impact of those motivational factors or norms on innovations adopted by the schools

> From the viewpoint of a market economy, it might be argued that many of the innovations adopted by the schools are not innovations at all, but only fads, since there is little or no serious attempt to validate them in terms of productivity or effectiveness criteria, nor is there any market-like mechanism which automatically separates wheat from chaff. The validation process for educational innovation is ultimately measured by bureaucratic and social acceptability -- criteria that are far more tenuous than those of a competitive market, but no less important for the actors in the bureaucratic marketplace. (p.119)

With regard to incentives that might be useful for energizing school district improvement processes, Pincus suggests that external agencies should provide funds to the district especially for undertaking activity that district staff would otherwise be reluctant to do. State agencies can encourage risk-taking behavior in the district by stressing long term rather than immediate results. R&D agencies can encourage

district staff to innovate by stressing and supporting adaptations to innovations rather than strict adoptions. The district itself can encourage improvement by providing these same incentives for the staff of the school.

c. Participation

There is considerable reference in the literature to the importance of encouraging the participation of various groups in improvement processes (e.g., Lieberman, 1977; Miles, 1975; Paul, 1977). There is, however, little empirical evidence provided as a basis for identifying differential effects of various kinds of participation upon improvement processes and their outcomes.

Very recent literature does seem to be in agreement that "top-down" decision-making patterns of introducing innovative practices into schools are relatively ineffective. This notion has permeated educational agencies to such an extent that the United States Army's Training and Doctrine Command (TRADOC) now employs participation strategies when promoting the use of new instructional technologies in Army schools and operational units.

In this vein, Kirst (1977) suggests that when innovations are introduced into a school district by means of hierarchial "top-down" decision-making patterns, subsequent involvement on the part of teachers may be relatively ineffective. He indicates that "bottom-up" participation in the early stages of decision-making is more suitable for subsequent teacher involvement in the innovative process. Lieberman (1977)

and Sikorski et al. (1976) offer similar suggestions.

Sieber (1975), in considering "classical strategies" for inducing change in education, identifies three approaches often taken. Each of these strategies rests upon major assumptions about the "maturation of practitioners." Sieber refers to his strategies as "rational man" (practitioners are driven by rational decision making to formulate clear objectives and to make efficient allocations of resources); "cooperation" (practitioners are willing to cooperate in new ventures); and "powerless participant" (participants are unable to innovate).

He suggests that these strategies fail because people are not wholly rational, cooperative, or powerless though at times they exhibit elements of those behaviors. Sieber prescribes another strategy, referred to as "status-occupant," which builds on teacher and principal participation.

In order to make his remedy work, Sieber suggests dramatic changes. Among those suggested are

> Locally, the organization of schools should be revamped to permit teachers to behave in accordance with their professional self-image. For example, a teacher who wishes to become a local expert on some new development might be allowed to apply to the school board for special authority to try out the development. If approved, the teacher would be provided with special funds, released from routine teaching duties, and authorized to modify regulations, reallocate resources, reassign students, and dole out rewards and penalties... The role of local administrators vis-a-vis these teachers would be restricted to one of facilitation and consultation. (p.95)

d. Capacity for change

The idea of an organization's capability or capacity for change is touched upon by a few authors. At a very general level, Baldridge (1974), Baldridge and Deal (1975), and Miles (1975) suggest, in terms of the organizational properties of a school district to support change, than an "adaptive" capacity is important. Without such a capacity, they argue, the district will be unable to respond to the demands of the innovative process.

Baldridge (1974) discussed empirical findings based on six research projects sponsored by the Stanford Center for Research and Development in Teaching. According to him, innovation is enhanced by large organizational size and structural complexity. Such is the case because in Baldridge's view role specialization will support innovation; innovations are likely to spread widely in a district with centralized coordination responsible for developing and supporting innovation; complex organizations are better able to develop strong evaluation systems (c.f., Averch et al., 1972).

Miles (1975) takes a different view of organizational capacity for change by arguing that, instead of studying individual behavior or innovations and their diffusion, researchers ought to be concerned with the school district's "organizational health," that is, its ability not only to function effectively but to develop and grow into a more fully functioning institution.

The focus of Miles' discussion is on organizational health in the sense of positive well being. Organizational health can be seen as a set of fairly durable second-order system properties which go beyond short run effectiveness. Miles gives ten dimensions of organizational health: (1) goal focus, (2) communication adequacy, (3) optimal power equalization, (4) resource utilization, (5) cohesiveness, (6) morale, (7) innovativeness, (8) autonomy, (9) adaptation, and (10) problem solving adequacy.

At a much more specific level, the elementary school principal's abilities to deal with improvement processes are discussed by Becker et al. (1971) as an important aspect of the school district's capacity for change. One of the conclusions they drew from a study, which included as respondents state and federal agency personnel, college and university professors, and 270 elementary school principals from across the nation, was

> The principal's lack of knowledge about the strategies to employ in effecting educational change is a critical factor in the current leadership crisis. The majority of principals are confident of their ability to oversee the routine operations of their buildings, but few have any degree of confidence in their ability to assume a leadership role in instructional improvement. (p.9)

Apart from indications that an organization's capabilities and perhaps readiness for undertaking improvement processes are important, there is not much empirical evidence in the literature that might be useful in identifying and strengthening such capabilities.

3.2 Outside influences

The influences identified and discussed in this section are those that are normally thought to be beyond the "boundaries" of the formal school district organization. It should be somewhat clear, however, that external influences often interact with normal school district processes.

External influences on the school district are many and diverse. Among these, for example, are the Chamber of Commerce and the Rotary Club, the college and university, the PTA, the home and gangs. The author of this paper has selected for discussion three categories of influences as being closely tied to improvement processes: (a) community pressure and support, (b) external agency pressure and support, and (c) funding.

a. Community pressure and support

The literature that discusses the influence of the community on improvement processes, in the main, does little to distinguish among the various groups and individuals that make up "the community." At times authors seem to refer to parents with children in school and at other times various organized pressure groups. Regardless of how community is defined, its influence is seen in the literature as important. Empirical evidence related to the effects of different approaches to community involvement in improvement processes, however, is difficult to find.

Mort and Cornell (1941) empirically identified a wealthy and supportive community as being essential to the early adoption of

innovations. Brickell (1961) indicated that while community advocacy for an innovation might not be absolutely essential, strong community resistance to a new idea or innovation is tantamount to failure.

Kirst (1977) makes several points about citizen advisory groups. After examination of the case studies from five NIE experimental school sites, he concluded that community advisory groups were unable to exert discernible influence on significant policies. It should be pointed out that those advisory groups were required as a project component in each site by NIE. Kirst indicates that in rural experimental school sites the notion of citizen participation was alien to the political culture.

After reviewing other studies and considering his experience, Kirst comments on the role of the principal and the central administration in working with citizen advisory groups.

> It is not surprising that many principals are unprepared both psychologically and technically for sharing decision-making with parent councils in a meaningful way. In such situations, support for the councils from central administration can be crucial for enhancing the council's influence. (p.21)

b. External agency pressure and support

There are many different kinds of external agencies. They include, among others, federal agencies, state agencies, intermediate service agencies, colleges and universities, and R&D agencies. While various studies contain conclusions about the influence of external agencies on improvement processes, each study considers a different mix of external agencies. Thus, there are few conclusions that can be drawn about

the generalized "external agency." Few studies provide much in the way of empirical evidence about effects of external agencies on improvement processes.

Reference to pressure from and support by external agencies with regulatory powers is provided by Kirst (1977), Pincus (1974), the Rand studies, and Temkin, McCann, and Connolly (1977). Each suggests that external pressure and support can be either a positive or negative influence on improvement processes.

Kirst and the Rand study team (Greenwood, Mann, & McLaughlin, 1975) indicate that it is important for external agencies to permit the local school district to adjust guidelines provided by the external agency so that the local staff are able to make a flexible response to a problem that is perceived by them as important to their organization.

Pincus argues that external agencies should not only permit but actually encourage local experimentation. Miles (1975) and Baldridge and Deal (1975) also advocate local experimentation from an organizational development perspective.

Several authors consider the influence of state level agencies on improvement processes (Emrick, Peterson, & Agarwala-Rogers, 1977; Sikorski et al., 1976; Temkin, McCann, & Connolly, 1977). Temkin, McCann and Connolly (1977), for example, argue that external pressures from states provide opportunities to the school district for initiating improvement processes. They suggest that it is important that sufficient correlative external support be provided or the district may be

unable to fashion a positive response to the pressures. To them, support consists of training, technical assistance, encouragement, and sufficient time for completion of work.

c. Funding

Funding for an improvement process may come from the school district or from outside agencies. Funds are discussed in the literature primarily as being critical to energizing innovative processes by, for example, initially buying release time for staff to participate in mobilization activities (e.g., Kirst, 1977; Temkin, McCann, & Connolly, 1977). Some authors identify other kinds of uses for funds to support innovative processes; for example, training for teachers (Lieberman, 1977), or special training for principals "in change" (Lipham, 1977).

In the author's judgment, other dimensions of funding may be important. These dimensions are: (1) the sources of funds and (2) the latitude permitted in the use of funds. Such characterizations may provide insights about the influences of funding and funds upon the mobilization process.

An improvement process may be funded by a single funding source or by more than one funding source. This distinction suggests a few questions. For example, are projects with single funding sources more effectively managed by school district staff than projects with multiple funding sources? Does it matter if the district itself is one of the funding sources?

The latitude permitted by the funding source(s) may also influence project processes and outcomes. For example, do certain kinds of spending guidelines restrict school district staff from conducting activities that are important to project processes and outcomes?

4. Impact of the Mobilization Phase

As suggested earlier, school district and outside influences interact with mobilization activities and in so doing have certain kinds of impact. Various aspects of that impact are identified and discussed here. The first section deals with short term impact and the second section with longer term impact.

4.1 Short term impact

As mobilization phase activities terminate, two kinds of impact are discernible. These are referred to as level of funding obtained and characteristics of the innovation selected for implementation.

a. Level of funding obtained

The importance of funds for initially energizing an improvement process, of funding sources to management of the process, and of spending flexibility to the conduct of activities were discussed previously. Apart from these funding influences, the amount of money actually obtained for support of the improvement process -- whether funds are provided by the school district or by outside agencies -- may be seen as both an influence on and an outcome of the mobilization phase.

Lieberman (1977) indicates that school districts typically provide different amounts of resource support for each school. She suggests that the amount of special resources obtained by a school depends in

part on the entreprenurial abilities of the principal. Apart from the entreprenurial disposition of the principal, a school should be able to attract more resources from a larger pool of funds. Thus, the amount of funds obtained by the district may be used to support the completion of activities that might be unaffordable with a lesser amount of funds.

b. Characteristics of the innovation selected for implementation

An innovation -- an intact curriculum package or perhaps a combination of instructional practices taken from several packages or approaches -- has been selected by school district staff as appropriate for their circumstances. This selection decision is an outcome of the mobilization process. In turn, the decision is expected to impact on the instructional and learning activities that take place during the implementation phase.

Since instruction and learning may be seen as the heart of an improvement process, it seems worthwhile to consider in some detail characteristics of the selected innovation and how those characteristics might influence instruction and learning. Characteristics of innovations have been discussed in the literature in at least three general ways.

First, the characteristics of innovations have been discussed from an adoption perspective (e.g., Brickell, 1961; Carlson, 1965; Orlosky & Smith, 1972). Those who utilize an adoption perspective examine school district behavior as innovations are adopted in order to find out why long periods of time elapse before large numbers of schools adopt a

given innovation. They might characterize an adopted innovation in terms of its attractiveness or ease of use.

Secondly, the characteristics of innovations, only very recently, have been discussed from an adaptation perspective (Greenwood, Mann & McLaughlin, 1975; Fullan & Pomfret, 1977). Those who utilize this perspective examine school behavior as innovations are adapted by the organization and as organizations adapt to the innovations. They might characterize an innovation in terms of its divisibility or flexibility.

Thirdly, the characteristics of classrooms have been analyzed in the literature of instructional learning psychology (e.g., Bloom, 1976; Gagné & Briggs, 1974). This perspective, while not particularly focused on the characteristics of innovations, offers guidance for looking at the match between an innovation and the needs of the classroom.

It would appear that each perspective offers assistance in considering consequences of the district's decision. Each of the perspectives has influenced the author of this paper in selecting characteristics or dimensions of an innovation as indicators of these consequences. Five characteristics are suggested here.

Instructional and learning psychology suggests that in the ideal the innovation should provide learning tasks, instructional content, and instructional practices which are compatible among themselves and at the same time which are suitable to the learner's needs and characteristics (Bowers, 1978; Connolly & McGrail, 1978). That conclusion suggests that the compatibility among learning tasks, instructional content, and

instructional practices is an important characteristic of an innovation. A second important characteristic of an innovation suggested by the same conclusion would be the compatibility between those dimensions and the needs and characteristics of the learner.

The adaptation perspective suggests that an innovation should be flexible enough to permit small adjustments and major alterations to learning tasks, instructional content, and instructional practices. Thus, flexibility or perhaps divisibility is seen as a third important characteristic of an innovation. This characteristic may be useful in assessing the degree of planned adoption/adaptation.

A fourth characteristic of an innovation which may influence subsequent processes and outcomes is suggested by the adoption perspective. Innovations are developed by different kinds of agencies. Among these agencies are publishers, universities, school study councils, school districts other than the one involved in the improvement process, R&D agencies, and the school district, itself. By way of example, it may be useful to consider a recent USOE initiative in terms of how the source of an innovation might affect implementation processes and outcomes. The National Diffusion Network assists school district staff to adopt innovations that were originally developed by other school districts. This approach, it would appear, is predicated on assumptions that at least in part relate to the suitability, practicality and thus acceptance of those innovations by the potential adopter. At issue, it would seem, is the notion that different kinds of agencies develop innovations

by means of different processes and that those processes produce differences in the innovation. In turn, those differences in the innovation affect the ability or perhaps willingness of school staff to perform mobilization and implementation activities. A fourth important characteristic of an innovation, then, might be seen as the source of the innovation.

A fifth characteristic is suggested by a variety of perspectives. This characteristic is referred to here as the scope and complexity of the innovation. There are two basic ideas underlying scope and complexity. The literature is not altogether clear about these ideas. On one hand there is some speculation, if not empirical evidence, that the amount of change that an organization effectively can handle at any given time is limited (Osview, Temkin, & Maguire, 1974; Paul, 1977). In a sense this may relate to the notions of adaptive capability discussed earlier (see section 3.1d).

On the other hand, there is some speculation and a little empirical evidence (Rogers, 1962) that the complexity of the innovation in some way impacts upon its acceptance and use. Deal, Meyer and Scott (1975) studied schools implementing complex innovations and constructed an index of complexity but were unable to correlate index scores with improvement process outcomes. Other authors have argued for the introduction of complex innovations into schools by small or incremental steps (e.g., Haughey, 1974; Paul, 1977).

4.2 Longer term impact

Factors that influence mobilization activities and that have identifiable impact on short term outcomes may be seen, as a combined influence with those short term outcomes, as impacting upon implementation activities and the longevity of the innovation. These influences are discussed in brief here.

a. Impact on the implementation process

In the previous section some of the short term outcomes identified were discussed with regard to their implications for the implementation process. Beyond those considerations, mobilization activities and the manner in which those activities are conducted have other influences on implementation activities. That is, to some extent, the mobilization phase "sets the tone."

Only a few authors provide anything in the way of concrete examples for this. One of those examples is provided in Kirst's 1977 study of the Early Childhood Program in California. After reviewing evidence from that experience, he concluded that "bottom-up" participation during mobilization activities was more likely to develop participant consensus and acceptance which was important later during the implementation process.

An example, which indicates that participation patterns during the mobilization phase may work for or against implementation activity, is provided by Paul (1977). Fullan and Pomfret (1977) cite corroborating evidence. Paul suggests that involvement, participation, and

decentralization influence the success of change projects. The nature of that influence, however, may be quite variable. He indicates

> Widespread participation of staff at early stages of a change program will help to create commitment to and identification with a change effort. In addition, extensive involvement provides opportunities for program planners to assess the extent to which school needs, as perceived by staff, are addressed by the change. On the other hand, widespread participation and a decentralized structure may inhibit coordination and control which are necessary for the implementation of new programs. In other words, a loose organizational arrangement may facilitate awareness of needs and commitment to change, but a tight organizational arrangement may be needed to implement the change. (p.44)

b. Impact on the longevity of the innovation

In all of the literature reviewed only the Rand study draws conclusions about the influence of factors within the mobilization process upon the continuation of the improvement practice. Greenwood, Mann, and McLaughlin, (1975) identify mobilization phase factors that impact on the continuation of a project, even after federal funding has been withdrawn. These factors are referred to by the Rand team as "initial commitment and priority," and "replacement versus add-on."

According to the Rand study team, projects with strong initial district support and seen by district staff as a solution to a particular problem tended to be continued. Projects initiated in opportunistic response to available dollars received little administrative support as continuation was considered, even when project objectives were achieved.

The Rand team also indicated that projects which were seen as replacements for current practices were more likely to be continued in

contrast with those which were perceived as add-ons to existing practices. This finding, however, was confounded by the very nature of the innovations adopted; that is, technological type innovations were almost always perceived as add-ons and innovations with strong staff development components were almost always perceived as replacements. The Rand team promised to unscramble these factors in a forthcoming study report.

5. Brief Summary for the Mobilization Phase

The mobilization phase has been discussed in terms of school district and outside influences on mobilization activities. These forces were seen to interact and to impact upon short term and longer term outcomes. Short term outcomes themselves were also seen, in effect, as having short term and longer term outcomes as well. The next section considers the implementation phase of the improvement process.

C. Implementation

1. Overview for the Implementation Phase

According to Webster, implementation is the provision of implements (e.g., tools, instruments) "to give practical effect to ensure actual fulfillment by concrete measures." Today there is considerable support for the belief that the importance of the implementation process has been underemphasized by practitioners and researchers alike (e.g., Charters & Pellegrin, 1973; Fullan & Pomfret, 1977; Paul, 1977). Fullan and Pomfret, in a review of a number of empirical studies dealing with curriculum implementation, pause to ask why the study of implementation

is important. They provide insights into the importance of studying implementation.

> There are several reasons why it is important to focus on implementation. The first reason is that we simply do not know what has changed unless we attempt to conceptualize and measure it directly. Less than a decade ago, commentary and research on planned change revolved almost exclusively around specifying the properties of the innovation, assessing outcomes, and to a lesser extent, planning changes and getting people to agree to try them. Illustrative of the then prevailing concerns are questions such as: What are the characteristics of the innovation? What are its intended goals or consequences? What values and assumptions does it embody? What negative outcomes might it generate? Is it necessary or desirable? Is it likely to achieve its objectives? Is the design conceptually sound? How is it best to plan an innovation? How is it best to evaluate it? These elements, however, as important as they may be, do not address implementation questions per se. There is a singular lack of curiosity about what happened to an innovation between the time it was designed and various people agreed to carry it out, and the time that the consequences became evident. Once an innovation was planned and adopted, interest tended to shift toward the monitoring of outcomes. The assumption appears to have been that the move from the drawing board to the school or classroom was unproblematic, that the innovation would be implemented more or less as planned, and that the actual use would eventually correspond to planned or intended use. The whole area of implementation, what the innovation actually consists of in practice and why it develops as it does, was viewed as a "black box" where innovations entering one side somehow produce the consequences emanating from the other. (pp. 336-7)

In addition to offering insights about the nature of what goes on within the "black box," Fullan and Pomfret suggest other uses to which the study of implementation may be put. Specifically they suggest that knowledge of implementation processes can help to explain reasons why changes fail to become established and can help to explain why better

learning outcomes occur in some sites and do not occur in others.

The chart on the next page provides an outline of some of the factors identified in the literature as influencing and interacting with implementation activity. The influence of the mobilization phase is represented symbolically by three boxes outlined with dotted lines. Managing, planning, and operating activities are seen as the core of the implementation activities. These activities and various cummulative influences are seen as producing certain kinds of impact and outcomes (e.g., changes in school district characteristics, changes to the innovation, and changes in student outcomes). Project continuation is also seen as being impacted. In the remaining parts of this section implementation activities and their impact are discussed. A very brief summary is also provided.

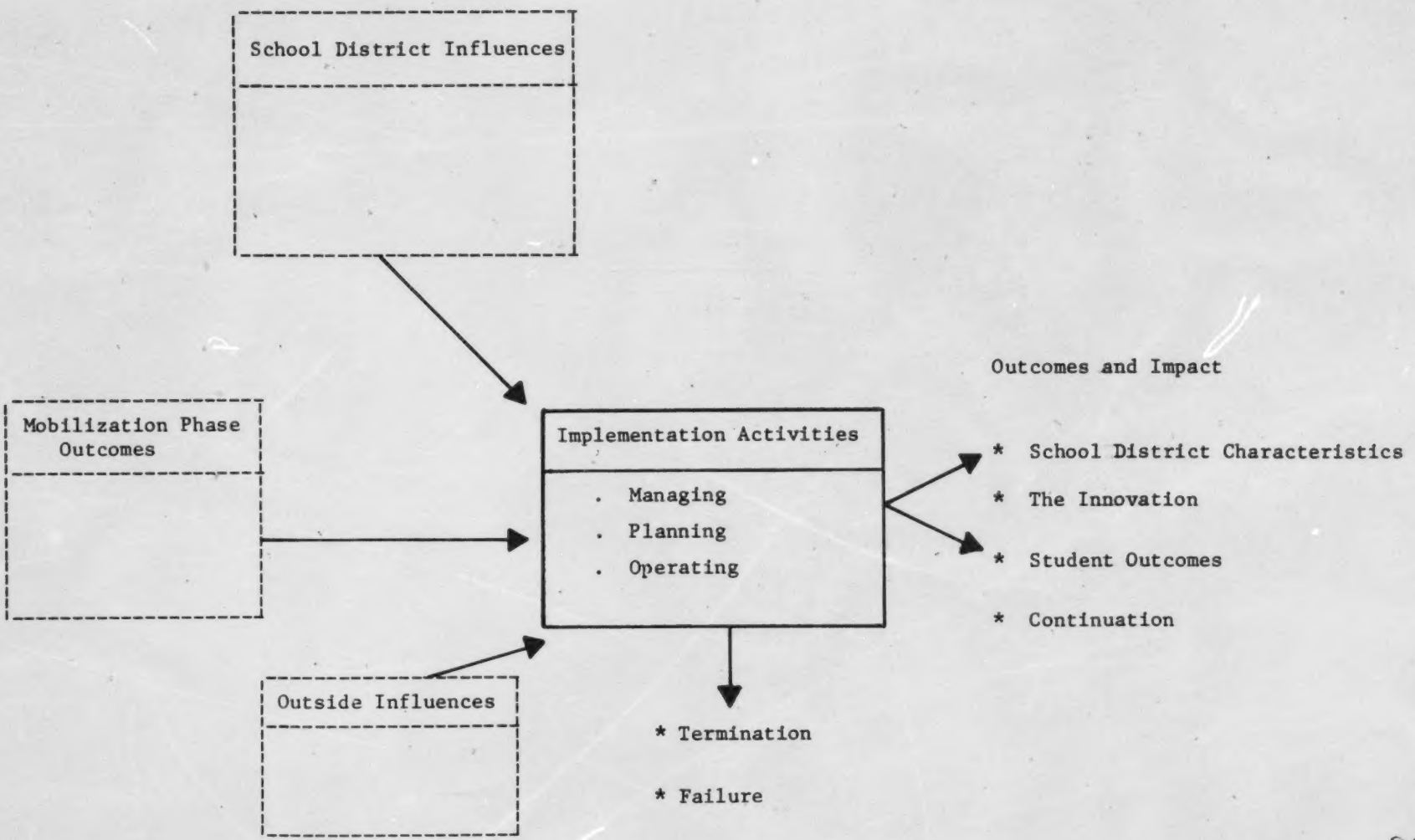
2. Activities Within the Implementation Phase

2.1 Nature of implementation activities

Within the last three or four years, two contrasting perspectives concerning implementation have begun to emerge (Berman & McLaughlin, 1975; Fullan & Pomfret, 1977). Much of the discussion provided here has been strongly influenced by those studies.

Fullan and Pomfret indicate that the "fidelity" perspective assesses the degree to which implementation is congruent with developer or perhaps planner intentions. The "process" perspective assesses how the innovation developed and changed and identifies the kinds of impact the organization has on the innovation.

IMPLEMENTATION PHASE



Neither the Rand study team or Fullan and Pomfret provide a composite view of activities that occur or perhaps should occur within the implementation black box. The organization and analysis provided here for the most part is that of the author of this paper. Implementation activities are separated into three categories of activity: managing, planning, and operating.

2.2 Managing activities

Implementation of an innovation may be characterized as pilot activity or project. "A project is a complex, goal-oriented activity which has a finite life span, a cost limit and some uncertainty about the method of accomplishing its goal" (Ball & Cummings, 1973). Managing activities are concerned with seeing that implementation activities are planned and completed.

In a study of 206 respondents who were associated with the implementation of 146 educational projects in colleges and universities, Ball and Cook (1973) found that meeting project objectives was judged by respondents to be the most important factor in determining project success. Meeting the project time schedule and completing the project within cost constraints were seen as having relatively little importance as criteria for judging project success.

According to Ball and Cummings (1973), the implementation of projects consists of four process phases: planning, preparation, operations and termination. The planning phase includes setting goals for the project; specifying the tasks to be done; determining time schedule,

cost and human resource needs; and preparing a budget. The preparation phase involves obtaining and organizing staff, equipment, materials, facilities, and information. The operations phase includes the actual conduct of the project with full recognition that implementation problems will be identified and solutions for those problems will be sought. The termination phase includes project reports, transferring of personnel, and either ending the project or integrating project activities into the program of the institution.

While Fullan and Pomfret identify all of these functions as necessary, they express dissatisfaction with what they refer to as the managerial perspective. They argue that the management perspective of implementation usually has not allowed for necessary participatory processes and too often has been associated with the fidelity perspective for implementation. But this does not have to be, for there is nothing inherent in a project management process that does not permit, or for that matter, encourage participation and adaptation. This of course assumes that the individual who is assigned management responsibility is willing to seek flexibility as project needs emerge.

The adoption of a project-management perspective for guiding the implementation process increases the likelihood that objectives and plans will be clear, that implementation progress will be monitored, and that responsibilities including those of overall management of the implementation process will be clear. To the degree that the basic principles of project management are absent from the implementation process,

the likelihood of implementation failure may be increased*. While this proposition has not been empirically tested as part of present-day improvement processes in school districts, it would appear to have merit.

2.3 Planning activities

Planning is certainly a management function. Planning activities are given separate treatment here only to emphasize their importance. Implementation phase activities should begin with the preparation of an implementation plan. This is the planning stage according to Ball and Cummings (1973) and, according to Fullan and Pomfret, enables implementors to achieve clarity and explicitness prior to conducting classroom activities.

Fullan and Pomfret report a study in which the majority of teachers "were unable to identify the essential features of the innovation they were using." In another study cited by them, "the innovation was described in abstract global terms with consequent ambiguity on the part of teachers as to what the change entailed behaviorally." Still other

* An implementation process may end in any of three ways. First, a project's implementation may be terminated formally or informally by the school district organization or implementation team staff. Formal terminations result from explicit decisions while informal terminations result from a sense of disbelief in the continued viability of the project. Withdrawal of support and resources, changes in priority, changes in key staff and various other factors contribute to both formal and informal terminations. Second, a project's implementation may fail. Implementation failure occurs when systematic, planned and managed activities cease even though staff have the willingness and resources to continue. Factors contributing to implementation failure are similar to those cited as contributing to project termination. The key difference is that implementation failure is the result of informal factors that tend to dissipate project leadership. The third way in which an implementation process ends is when staff are able to operationalize their plan.

studies provide similar findings.

Preparation of an implementation plan, as it is discussed here, builds on the process outlined earlier in the mobilization phase discussion as a useful way for school district staff to decide on a specific innovation. By way of recapitulation, that process consisted of (1) analysis of data about student characteristics and performance, (2) analysis of present classroom instructional practices, (3) formulation of a conception or "shared vision" of the instructional and learning environment that should be operationalized, and (4) search for classroom programs and practices that could be adapted to operationalize the shared vision. Were such a process to have guided "curriculum selection" activity, school staff would adopt what Fullan and Pomfret have referred to as a "process" perspective for implementation.

Aside from the usual definitions of objectives, time schedules, tasks, and budgets, the implementation plan should, it would appear, provide definition to classroom roles (i.e., how the teacher relates to the children, how the teacher relates to instructional materials, how the children relate to instructional materials, how children relate to each other) and instructional and classroom management processes that bring role definition to operational life (e.g., how children are placed in learning sequences, how different kinds of feedback are provided to children). In a sense, the implementation plan should provide a clear operational statement of the shared vision previously developed by school district staff.

Provision for active participation and decision-making by the members of the implementation team* as an implementation plan is being prepared is essential (Crandall 1977; Lieberman, 1977; Lippitt, Watson & Westley, 1958). In a very real sense the school district staff either reconfirm or change their shared vision or perhaps create such a vision for the first time.

2.4 Operating activities

Fullan and Pomfret suggest that "successful implementation basically involves the resocialization of key actors." Resocialization consists of the giving up of old values, attitudes and role behaviors and the adoption of the new. Implementation methods should facilitate this resocialization. They also point out that there are "few solid empirical findings that provide evidence on the role of various means." Nonetheless, they do suggest that there is some evidence to indicate that four general kinds of tools or approaches are important to successful implementation: in-service training (depending on type), resource support (time, materials, etc.), feedback mechanisms that encourage interaction and problem definition, and participation in decision-making (depending on the nature and timing). In the paragraphs that follow approaches for making implementation operational are discussed.

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* Fullan and Pomfret indicate that the conditions under which user participation would be most effective remain to be identified. They cite two studies in which the right to decide about implementation led to confusion, frustration, role overload, and eventual rejection of the innovation by the implementors.

Prior to any actual classroom implementation, it is usually necessary to provide training to the members of the implementation team. The importance of training is emphasized by Crandall (1977), Lieberman (1977), Lipham (1977), and Fullan and Pomfret among others. Training, it would seem, should provide information and skills that would enable teachers and principals to carry out their roles as defined in the implementation plan.

Once the implementation process is extended to include operational classroom activity, several methods are useful to assuring reasonable congruence between behavior and plan. One method involves classroom observation. Several uses can be made of classroom observation information. First, the individual with responsibility for the project's implementation can obtain a sense about the match between behavior and plan and, in addition, identify the kinds of implementation problems that teachers and principals face. Second, the principal may find classroom observation information useful as a basis for discussing implementation problems and exploring solutions with teachers individually and in staff meetings. Third, these data can be used to plan special in-service training sessions as common problems surface. Fourth, classroom observation information can be used to revise the initial training package as it might be used to train teachers transferring into the school or to train and orient staff in other schools.

Fullan and Pomfret suggest that participation in decision-making, feedback mechanisms, in-service training, and resource support are most effective when they are considered as a mutually reinforcing package of

activities. They go on to suggest that any one without the others would probably have limited effectiveness. After a reasonable period of time, it would be expected that these strategies and tactics would enable the implementation team to achieve the operational classroom they sought. Of course, that does not preclude the idea that school staff might change or alter their shared vision.

3. Impact of the Implementation Phase

It has been suggested throughout this paper that the outcomes of a school district improvement process are the result of a great many complex and interrelated factors and forces. Various aspects of that impact are identified and discussed here. Four kinds of outcomes and impact are considered. These are referred to as: (1) school district characteristics, (2) the innovation, (3) student outcomes, and (4) continuation.

3.1 School district characteristics

Some organizational characteristics which may be altered or changed are norms, incentives, decision-making patterns, and communication patterns. When district staff perceive that the kinds of activities conducted within the improvement process are worthwhile and useful, they may attempt to pattern subsequent improvement activities after their recent experiences. For example, a few years ago the Cincinnati Public Schools, after experiencing positive results from applying project management methods to initiatives funded from outside sources, instituted a project management system at the district level for managing new projects.

3.2 The innovation

The Rand studies provide a very interesting notion, that of "mutual adaptation" (Greenwood, Mann, & McLaughlin, 1975). The Rand team concluded that successful implementation processes usually do not result when the school team adopts and implements the innovation according to the "fidelity perspective." Instead, they argued successful implementation is more likely to occur when the organization adjusts to the innovation and the innovation is adjusted by the organization -- the process of mutual adaptation.

Since school districts may adjust in many ways to the demands of an innovation and the innovation may be adjusted in many ways by the school district organization, it is important to attempt to identify the critical essence of the notion of mutual adaptation. Upon considered reflection of the seven volumes of the Rand study, and after a discussion with Paul Berman of the Rand study team, at least three key ingredients are seen by the author of this paper as contributing to the idea of mutual adaptation. First, within the scope of the innovation a wide variety of school district changes may be observable. For example, existing classroom staffing patterns or perhaps decision-making patterns within the school district might be altered during the implementation process. Second, a variety of changes to the innovation may be observable. For example, existing instructional materials may be keyed to the innovation's objectives for use as a supplementary resource or perhaps the staff training may be provided by an outside consultant

rather than by use of the training package that is normally part of the innovation. Third, and perhaps at the heart of the notion of mutual adaptation, is what is referred to here as role integration.

Brickell (1961) spoke of classroom roles in terms of subject matter knowledge and effective teaching when he said

> Many of the new instructional approaches now being introduced claim to bring greater flexibility to the teaching process. If the potential contribution of these approaches is to be fully realized, teachers must be taught more than is strictly required to go through the motions of the novel approach. Otherwise many of them will be unable to do anything but use the new content and method in a slavish, mechanical fashion. (pp. 32-33)

Fullan and Pomfret (1977), in their analysis of research studies concerned with implementation processes, conclude that "a curriculum change consists primarily of five dimensions: changes in (a) subject matter or materials, (b) organizational structure, (c) role/behavior, (d) knowledge and understanding, and (e) value internalization--all of these vis-a-vis a particular innovative idea or development." When Fullan and Pomfret discuss value internalization, their fifth dimension of curriculum change, they suggest that valuing by the school district staff must be linked to the specific aspects of the other four components of implementation. Their analysis, however, falls short of suggesting what happens to the role/behavior of the teacher when the innovation and its conceptual underpinnings are not internalized and thus are unintegrated into the very essence of how the teacher views learning and instruction--his/her role as a teacher.

Thus, some question remains about the significance of the idea of role integration as the essence of mutual adaptation. Classroom teachers may appear to perform a required instructional role while working within the temporal boundaries of their project. The author hypothesizes that when role integration occurs on the part of teachers -- that is, they internalize assumptions and values which conceptually underpin their role (e.g., perform the role in teaching/learning settings other than those provided by the project or continue the role performance after it is no longer required) -- the likelihood of attaining improved student outcomes for the project is increased.

3.3 Student outcomes

It has been suggested in this paper that improvement processes require resources, support, and time. Often the school district wants to provide evidence about attainment of student outcomes. In those instances, sufficient time should be allowed for the innovation to reach reasonable congruence with the implementation team's vision of an operational classroom and for the effects of the innovation to be experienced by children.

Student outcome measurement may be considered fron both formative and summative evaluation perspectives. For formative evaluation purposes it may be appropriate to find out, for example, if students are comfortable with new instructional materials or if particular lessons are effective in helping students to learn. From a summative evaluation viewpoint it seems appropriate to administer pre-test instruments only

after classroom implementation is reasonably congruent with the operational vision sought by teachers. In this way data about student outcomes will be tied to an identifiable and somewhat stable "treatment."

3.4 Continuation

According to the Rand study experience (Greenwood, Mann, & McLaughlin, 1975), an implemented innovation eventually loses its "special project" status. Some times a specific decision to continue or discontinue the project is made. Many times, however, that decision is not explicit. In some instances the project is continued under another name or perhaps parts of the innovation are adapted and combined with other innovations. In other instances, staff in a school continue to pattern their behavior according to the model established by the innovation even after the project is no longer identifiable as a special initiative.

The Rand study suggested that even the mobilization phase has some impact upon the eventual life span of the innovative practices. The implementation process is expected to have a more direct impact upon the continuation of the innovation as there is now considerable experience upon which staff feelings and perceptions about the worth and practicality of the innovation may be based. Evidence also may be available about the kinds of student outcomes produced.

4. Brief Summary for the Implementation Phase

The implementation phase has been discussed as a continuation of the forces initiated and effects achieved within the mobilization phase. Implementation phase functions includes managing, planning and operating

activities. Those activities were considered as was their impact upon school district characteristics, the innovation, student outcomes, and continuation of classroom practices.

II. EXTERNAL AGENCY ROLES IN SUPPORT OF SCHOOL DISTRICT IMPROVEMENT PROCESSES

A. Introduction

An external agency is defined here as an individual or group of individuals whose interests in school district improvement in part derive from considerations other than those of the school district organization. External agencies include, among others, federal agencies, state agencies, intermediate service agencies, community agencies, colleges and universities, school study councils, professional associations, labor groups, and R&D agencies. They also include individual professors and consultants.

In this, the second and last major section of this paper, an attempt is made to summarize some current understandings about roles that external agencies perform in support of school district improvement processes. This section is divided into three sub-sections. The first considers some perspectives that influence approaches fashioned by external agencies. The second section considers means and ends and the assessment of external agency performance. The third section identifies questions that may require attention by external agencies as they assess existing approaches to supporting school improvement and create new ones.

B. Historical Perspectives

In this section, four perspectives for working with school districts that have influenced contemporary external agency strategies are discussed. They are referred to here as

- Adoption/diffusion
- Human relations/ organizational development
- Rational/technical
- Informational

Each of these perspectives is now briefly characterized. A discussion that contrasts the four perspectives is also provided.

1. Adoption/Diffusion

Adoption/Diffusion refers to the acceptance of an innovation, and its spread, relatively intact, throughout schools and school districts. Studies of the adoption and spread of innovative practices are found in the educational literature of the past 35 years (e.g., Mort & Cornell, 1941; Rogers, 1962; Carlson, 1965; and Orlosky & Smith, 1972). Basically, the authors of these studies attempted to identify characteristics of innovations and school districts that might be useful in suggesting how to enhance the spread and use of innovations by schools.

The Elementary and Secondary Education Act of 1964 provided for a network of R&D Centers and regional educational laboratories. These

agencies were created because Congress was concerned, among other things, about the long period of time it took for schools to adopt educational practices. Underlying the congressional thinking were such assumptions as: (1) there were numerous good educational ideas and practices in existence; (2) R&D centers could develop more fully these ideas and practices; and (3) regional laboratories, in collaboration with R&D centers, could disseminate results to the schools.

Research for Better Schools and the Learning Research and Development Center at the University of Pittsburgh were the first of the Title IV, ESEA agencies to collaborate on any widespread scale. The subject of their collaboration was individualized instruction; the R&D product became Individually Prescribed Instruction (IPI). The innovation was tested in four schools in 1966-67 to identify the kind of support system required by schools that adopted the innovation. By 1972, IPI had been adopted by more than 500 schools in 350 school districts in 45 states.

The Wisconsin R&D Center developed a model of individualized instruction, Individually Guided Education (IGE). The model incorporated various kinds of supportive organizational structures for classrooms and schools. After several years of experience in working with state departments of education, the R&D center initiated a strategy in 1968 to introduce IGE to large numbers of schools. The strategy was based on state level leadership in the building of networks of IGE schools within the state. In 1971, IGE was selected by the USOE for national diffusion. By 1974, about 2,000 elementary schools in 36 states were functioning

with IGE. Federal agencies, states, and R&D agencies, working together, had demonstrated that large numbers of schools could be encouraged to adopt innovative practices within relatively short periods of time.

Today the notion of stimulating the adoption of educational practices is being fostered by USOE. The National Diffusion Network (NDN) and the Product Information Packages (PIPS) initiatives are encouraging school adoption of locally developed educational practices through different strategies and support systems.

In the main, those who are comfortable with the adoption/diffusion perspective, consider strategies to introduce and, in many instances, to implement curriculum innovations in schools. Approaches based on this line of thought tend to stress the importance of informal networks of practitioners, availability of information about innovations, and sales-oriented marketing activities. Superintendents, key central office curriculum administrators, and principals have been singled out as the appropriate client group or market. Appeals to this market have tended to stress the adoption of innovative instructional approaches as key long term means for attaining better and very often different kinds of student learning outcomes.

2. Human Relations/Organizational Development

Theories, models, practices, and some empirical studies that emphasize the importance of the human element in the change process are all found in the educational literature. Strategies based on this perspective have tended to stress the need for change agents to facilitate

organizational problem solving. No particular client group is singled out, as any individual or group with a problem is seen as a potential client. Because mutual goal setting between the client and change agent is highly valued, appeals to clients have tended to emphasize successful problem solution as an appropriate outcome for the relationship.

Views about the need for change agents to facilitate human relations processes in school district improvement activities also abound in the literature. Many of the roots of these views are compatible with, if not in some ways traceable to, the work of Lippitt, Watson, and Westley (1958). Ronald Havelock, a colleague of Lippitt's at the Center for Research on the Utilization of Scientific Knowledge (CRUSK) at the University of Michigan, used six phases to characterize how an educational change agent or linking agent should work to link schools with sources of information. Havelock's phases included: (1) relationship, (2) diagnosis, (3) acquisition, (4) choosing, (5) acceptance, and (6) self-renewal (Havelock, 1973). Havelock is credited with popularizing the idea of the "linking agent" prevalent in present-day dissemination conceptions.

Those who work from the human relations/organizational development perspective consider ways to improve the quality of organizational life for people. They seek to achieve this through consideration of human social and emotional needs in defining and seeking solutions to problems in organizational processes.

3. Rational/Technical

Another perspective that has influenced external agencies is referred to here as rational/technical. Literature supporting this perspective consists primarily of models, generally divided into improvement stages, accompanied by technically-based how-to-do-it procedures that should be followed by school districts engaged in improvement processes (e.g., Kaufman, 1972; Reisman & Taft, 1969; and Temkin & McNamara, 1973). Although very little empirical study of school districts as they follow these models is found in the literature, there has been considerable accomplishment by school districts along rational technical lines.

Many of the training packages prepared by labs and centers are concerned with the development of technical skills for school district staff who face various problems in improvement processes. For example, the work of the R&D Center at U.C.L.A., Center for the Study of Evaluation (CSE), primarily was for building program evaluation skills.

Those who foster the rational/technical perspective consider ways to improve management capabilities of school districts as a means for increasing the likelihood of curriculum improvement. They attempt to achieve this by stressing the importance of management, planning, and evaluation capabilities. Training packages and technical assistance are the primary tools used. Appeals to superintendents and other central office administrators emphasize improvement in the technical skills of district staff and the quality of improvement-oriented work produced by

the schools.

Over the past ten years, a number of rational/technical management models have been adopted by school districts. As an example, the statewide improvement systems in Delaware, New Jersey, and Pennsylvania are based on similar school improvement phases. Each of these state improvement systems has an initial phase in which some kind of goal setting behavior occurs. Assessment of student needs then takes place, and some combination of program selection, implementation, and evaluation stages follows. Bottom-up participation by teachers and principals as well as participation by community members has also been encouraged as districts implement state improvement models.

One of the key factors in the survival of these approaches in large numbers of school districts is the nature of the implementation strategy employed by the district rather than the technical quality of procedures included within the model. For example, Program Planning Budgeting System approaches (PPBS) of the 1968-1972 period tended to incorporate top-down implementation strategies. PPBS models have not survived in many school districts. Various "comprehensive planning" models, which first appeared in school districts around 1968-1969, tended to encourage bottom-up implementation strategies. These models and their implementation strategies have been incorporated by many states into their improvement models.

4. Informational

By 1965 there was concern at the national level that the volume of literature potentially available for use by educators was large, decentralized, and diverse in format. The ERIC system was planned to facilitate the use of that literature.

Some information systems such as the Educational Index and MARC, the Library of Congress machine readible cataloguing system, were already developed. Other information systems such as NICEM, the National Information Center for Educational Media, emerged even while ERIC was being conceptualized and developed.

Awareness about the usefulness of various information systems increased. The idea that "linking agents are essentially intermediaries between the school system they serve and the world of knowledge production and utilization" (Crandall, 1977) began to place some of the responsibility for creating a bridge between information systems and the schools with external agencies. Today, many school districts have access to various kinds of intermediate service agencies and informational services that permit them to link into ERIC and other information systems.

There is, however, widely held agreement that information alone will not be sufficient to effect change-oriented utilization of that information. This conclusion was corroborated by an Emrick and Peterson (1977) analysis of five major dissemination initiatives and studies of them funded by USOE and NIE. As they stated in their report, information must be coupled with a great deal of technical assistance in using that information.

5. Comparison of Historical Perspectives

The four somewhat distinct perspectives discussed above have influenced external agency strategies for working with school districts. Issues concerning the way in which a particular external agency combines various influences to build such a strategy are the subject of the next section of this paper. Before going on, however, it may be useful to contrast the four perspectives. The chart on the next page describes each perspective along three dimensions (1) change focus, (2) principal means emphasized, and (3) client group.

a. Change focus

Change focus refers to the target for improvement in the school district. Adoption/diffusion strategies tend to change curriculum through the introduction of innovations into the district. Human relations/organizational strategies tend to focus on organizational problems (e.g., attaining more open communication to facilitate the sharing of practices among teachers in an elementary school). The change focus for rational/technical strategies tends to be overall management and planning capabilities of the district. This focus bears some similarity to the focus of the human relations/organizational development perspective, except that the latter tends to be problem rather than capability centered, at least initially. Organizational development theory, however, does seek to build overall capabilities within the organization as a long run goal. Informational strategies are general in focus, as providing information about any kind of program, practice, research finding, model, etc. generally is seen as within the scope of activity.

SELECTED EXTERNAL AGENCY PERSPECTIVES

Perspective	Change focus	Principal means emphasized	Client group
Adoption/diffusion	Adoption of curriculum innovations; occasional emphasis on implementation	Informal networks of practitioners; information about innovations; sales-oriented marketing campaigns	Superintendents; other central office administrators; principals
Human relations/ organizational development	Organizational problems and processes	Change agents; group processes	Any individual or group within the district willing to engage the change agent in mutual problem solving
Rational/technical	Organizational management and planning capability with long term prospects for curriculum improvement	Training materials and technical assistance provided by skilled technicians	Superintendents; other central office administrators
Informational	General	Information systems; change agents technically skilled in search and retrieval methods	Any individual or group within the district with an information need willing to engage the change agent by requesting information.

b. Principal means emphasized

The essence of various perspectives is found in the means advocated for influencing school districts. Adoption/diffusion means tend to be compatible with means employed by private sector firms (e.g., publishers of textbooks and curricula) that use marketing strategies. In education, adoption/diffusion approaches, then, have utilized informal and formal advertising methods (e.g., sales brochures, convention displays and parties) to support sales-oriented marketing campaigns. Human relations/organizational development perspective means emphasize change agents who facilitate problem solving through the application of processes that attempt to take into account social and psychological needs of the client group. Rational/technical perspective means emphasize technical assistance and training materials that incorporate detailed procedural guides and how-to-do-it discussions. Similarities may be seen between this kind of approach and those taken by customer-engineers who, for example, help computer companies to install and operate data processing technologies in client firms. Informational perspective means tend to include the collection and integration of bodies of information and the fostering of procedures for clients to use those bodies of information. These means are compatible with contemporary library science conceptions and approaches.

c. Client group

Client group refers to the primary market-segment; that is, the group singled out to receive the initial appeals embodied in a particular

approach. When school district level adoption is sought, approaches based on the adoption/diffusion perspective tend to direct appeals initially to the superintendent or top level curriculum administrators. When strategies are aimed at individual school adoptions, appeals tend to be directed to the school principal and, in the case of secondary schools, the department chairperson.

Human relations/organizational development perspectives tend to be open to working with any individual or group who is willing to seek assistance and who can "pay the price." By contrast, specific approaches based on human relations and organizational development perspectives often are constrained by a sense of market-segmentation. For example, an approach may single out staff development specialists in school districts or perhaps curriculum implementation teams of teachers and principals. A relationship between the change agent and the client, however, requires the client to seek assistance, to have sufficient time and resources to work with the change agent, and depending on the way in which the change agent's work is financed, provide some sort of quid pro quo. Most often these requirements are clarified as a potential relationship is explored.

The rational/technical perspective seeks to reach superintendents, and other central office administrators concerned with developing management, planning, and evaluation capabilities in the district. It is based on building step by step models with training packages and technical assistance an important ingredient.

The client group for informational approaches is very general. The key problem is how to place guidelines in the hands of relatively undefined clients so that they know how to access the service and initiate requests for information.

C. Means and Ends and Assessment of External Agency Performance

Each external agency builds strategies for working with school districts. The configuration of structures and roles that comprises a given strategy are its means. "Pure" strategies, those dominated by a single perspective, most often suggest certain clearly identified criteria or ends as a basis for judging performance of the strategy. "Mixed" strategies, those influenced by more than one perspective, usually generate ambiguity with regard to identification of criteria for judging performance of the strategy.

Performance assessment is also complicated by the active presence of at least two categories of "judges" -- governance bodies and client school districts -- each with their own criteria and values.* Thus, an external agency may build an approach that has inherent criterion ambiguity and may see its performance assessed from very different points of view.

The performance of pure strategies is somewhat easy to judge from either a governance or client point of view. However, tensions arising

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* A third "judge" in many cases is the funding agency. To simplify and focus discussion, it is assumed here that the external agency's governance body and funding agency have agreed to a contract that clearly specifies means and ends.

from criterion differences between groups may surface even for pure strategies. As pure strategies, adoption/diffusion approaches of external agencies tend to be judged by governance bodies in terms of the number of school adoptions achieved. Apart from this criterion, there is a somewhat softened commitment to improving student outcomes. Realistically, learning outcomes are quite remote from the initial and primary point of payoff for the external agency -- the adoption decision. Thus, unless the external agency is involved intimately with post-adoption activity in the school, the student outcome criterion tends to dissipate. Were the external agency to have a strong post-adoption role, the strategy itself would be "mixed" and subject to a combination of criteria. School district clients, on the other side of the judgment scale, usually see a pure adoption/diffusion strategy as helping them to experiment with potentially effective innovative practices. All in all, very little criterion tension arises. Consequently, the performance of the external agency tends to be assessed similarly from either a governance or client point of view.

Pure human relations/organizational development strategies tend to be judged by governance bodies in terms of the client's perception of success. As long as the client is satisfied, the external agency's performance is seen as generally satisfactory. Clients have a similar view. District staff sought help in creating a solution to a problem situation important to them. When they feel that a workable solution is found, they are likely to seem satisfied. Since mutual setting of expectations

is an integral ingredient of this approach, the likelihood of perceived success on the part of the client is high.

Rational/technical approaches, as pure strategies, tend to be judged differently from governance and client viewpoints. Such strategies tend to be "sold" to governance bodies on the basis of client needs and the technical quality of the procedures to be used to meet those needs. So, for example, a method for analyzing existing curricula in order to identify weak instructional practices may be approved as a service offered by an external agency in part because many school districts need to assess current practices and in part because the method appears to be sound. Thorough application of the method may take two months' time. School district staff may not want to or be able to afford more than two weeks' time to identify weaknesses in their instructional practices. In such circumstances, the likelihood that a pure rational/technical approach will be judged as successful by the client is low since the strategy itself does not encourage mutual establishment of goals and expectations. Were such expectation setting activities initiated, the strategy would become more mixed in nature.

Informational strategies tend to be judged by governance bodies in terms of the number of completed requests for information. Information systems most often are organized for efficient storage, search, and retrieval. Thus, information as it exists is not always in the best format for use by the client. For a client to use information effectively, in many instances, special integration and formating of information is required. To date, this has been difficult, time consuming, and costly

for external agencies. In some instances, users of information systems have underwritten the additional cost of special information processing techniques. In many other instances, the client's need for useful information goes unsatisfied.

When an external agency initiates mixed strategies, a variety of factors should be taken into account to assure effective delivery of services. These factors include the nature of the client's needs (i.e., the change focus and the kind of improvement sought), the appropriate client group (i.e., the group or groups to which appeals will be made), and the best mix of means to deliver effective service, given the resources available to the external agency. An identification of questions for the external agency to consider in building strategies to work with school districts is provided in the next section.

D. Questions for the External Agency to Consider

It is likely that school districts will continue to initiate improvement processes in the forseeable future. If the trend of the last five or so years is projected, external agencies will perform important roles in support of school districts. In this, the last section of this paper, the author poses questions that may be of concern to the external agency as it considers existing and new roles. Questions are divided into those that relate to assessment criteria and those that relate to strategies and means.

1. Criterion questions

It is not altogether practical to separate ends from means. Still, to the degree practical, it should be informative for an external agency to learn or perhaps seek indications about the criteria against which its performance is judged by each of three groups -- funding agencies, governance bodies, and clients. Answers to the questions that are now posed should be helpful in negotiating more lasting criteria, in revising those criteria from time to time, and in guiding decisions about strategies and means.

- What are the criteria against which the agency wants its performance to be judged? Why are those criteria more important than others?
- What are the criteria against which the agency's performance might be judged by each important group or constituency?
- Can performance criterion incompatibility among groups and the agency itself be negotiated or in some way reconciled? How?
- What is the best way to communicate performance criteria to potential client groups so that expectations have the greatest likelihood of congruence?

2. Strategy and means questions

In the opinion of this author, each of the pure perspectives discussed previously has definite strengths and weaknesses. Adoption/diffusion strategies have strength in the fact that large numbers of schools can be influenced to adopt innovations in relatively short periods of time. The main weakness in such approaches is that the sales-oriented activity inherent in the approach, discourages local staff from

considering alternatives and from adapting practices from several "packaged" programs to the idiosyncratic needs of the school and its students. Human relations/organizational development strategies have strength in the fact that client satisfaction is consistently high because of the time and care taken to attend to human and social psychological needs and concerns. The main weaknesses in such approaches is the implicit assumption that within the client group is sufficient capability to formulate an appropriate and technically sound solution. This is often an overly optimistic assumption. Rational/technical strategies have strength in the fact that they offer sound procedures to guide the work of school staff. The main weakness in such approaches lies in a lack of attention to social and psychological needs and concerns of those who must plan and implement changes. Informational strategies have strength in the fact that knowledge and information is the cornerstone upon which effective change is based. The main weakness in such approaches is that the kind of knowledge and information required for school improvement often is difficult to locate and to format for school use.

An effective external agency strategy, then, should incorporate and integrate strengths of the various perspectives while at least acknowledging if not attempting to overcome their weaknesses. Answers to the questions now posed should be helpful in deciding among the various means that might be included within an external agency's approach to supporting improvement processes in school districts.

- Which improvement process activities do school district staff believe require the most outside assistance?

- What kinds of resource needs (programs, practices, information) are implied or suggested by the improvement process activities identified by school district staff as deserving support?

- What kinds of group processes can be used to facilitate the delivery of training and technical assistance?

- What technical capability does the external agency have or believe that it can acquire to support those activities?

The appropriateness of concluding this paper with questions to the external agency seems clear; the answers should provide direction and strategies for improved skills and relationships as the agency provides needed help to schools and school districts in an effort to reach their goal of improved student outcomes.

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